JVC

SERVICE MANUAL

POWERED SUBWOOFER

SX-DW303

Area Suffix

E --- Continental Europe

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No.21177
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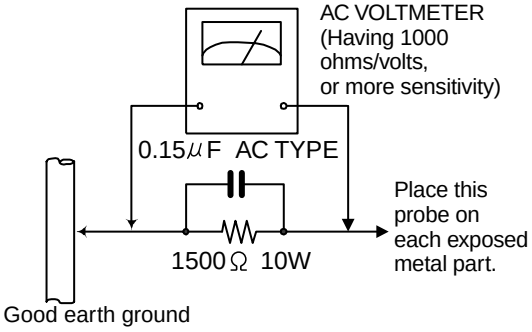
Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▬) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

Disassembly method

■ Removing the amplifier assembly

(See Fig. 1, 2)

1. Remove the eleven screws **A** attaching the amplifier assembly.
2. Remove the amplifier assembly to the front from the cabinet.
3. Remove the connection of the wire connector at the back side of the amplifier assembly.
4. Remove the connection of the speaker wire from the speaker terminal at the back side of the amplifier assembly.

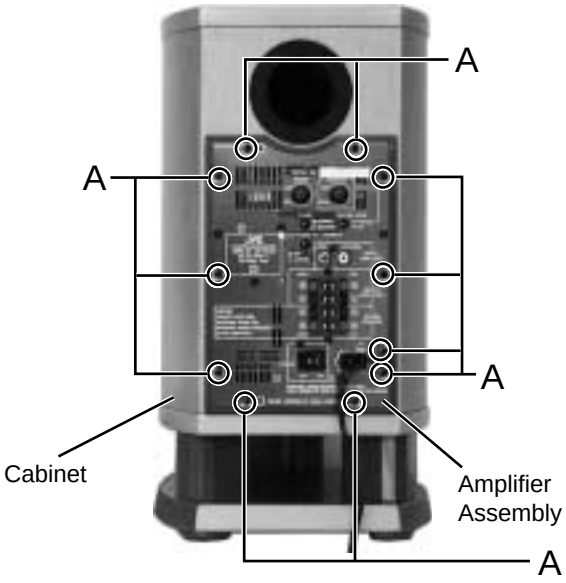


Fig.1

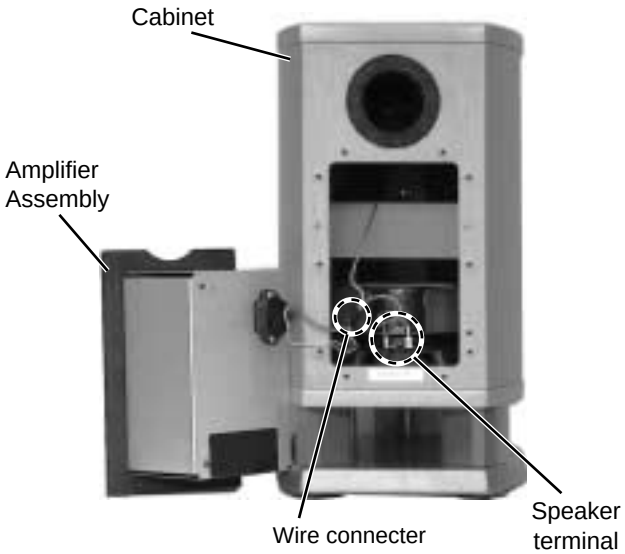


Fig.2

■ Removing the rear panel **(See Fig. 3)**

- Prior to performing the following procedures, remove the amplifier assembly.

1. Remove the volume nob & frequency nob.
2. Remove the seven screws **B** attaching the rear panel.

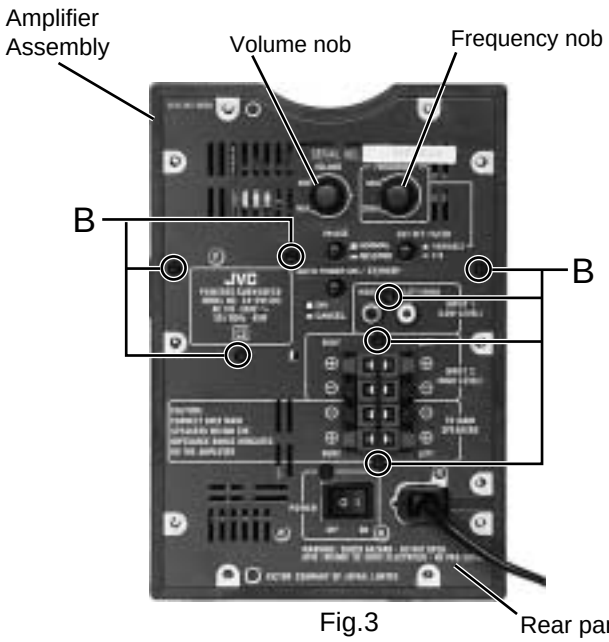


Fig.3

■Removing the power cord (See Fig.4, 5)

・Prior to performing the following procedures, remove the rear panel.

1. Remove the two screw marked **C** attaching the bracket **a.**
2. Pull out the bracket **a** toward you.
3. Remove the connection of the wire connector

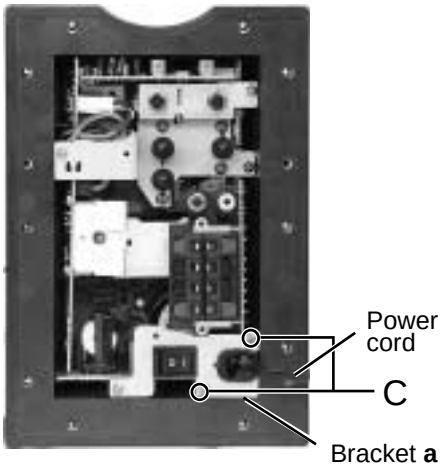


Fig.4

■Removing the amplifier assembly board (See Fig.5, 6)

・Prior to performing the following procedures, remove the rear panel and the power cord.

1. Remove the screw marked **D** that is fixing the bracket **b.**
2. Remove the three screws marked **E** that are fixing the bracket **c.**
3. Remove the wire connecter CN102 and CN503.
4. Remove the connection of the connector CN951 and CN952.
5. Pull out the amplifier assembly board toward you.

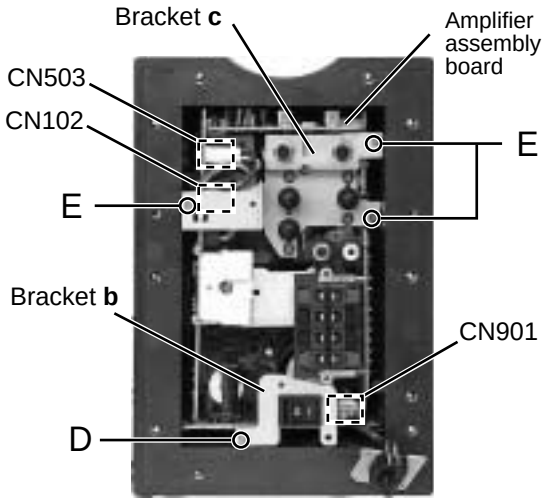


Fig.5

■Removing the power supply assembly bord (See Fig.6)

・Prior to performing the following procedures, remove the rear panel and remove the power cord.

1. Remove the amplifier board assembly**.**
2. Remove the six screws marked **F** attaching the power board assembly**.**
3. Pull out the power supply board assembly toward you.

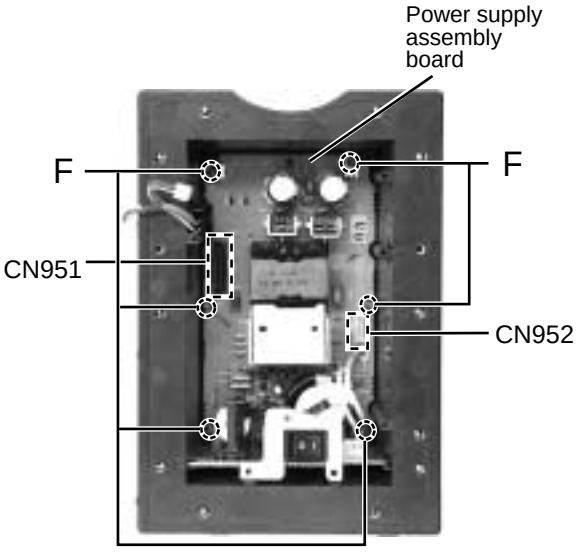


Fig.6

■Removing the Bottom plate

(See Fig.7, 8)

1. Remove the three sheets of the cushion sheet marked **G.**
2. Remove the six screws marked **H** attaching the bottom plate.
3. Remove the two screws marked **I** attaching the bottom plate.
4. Pull out the bottom plate toward you.

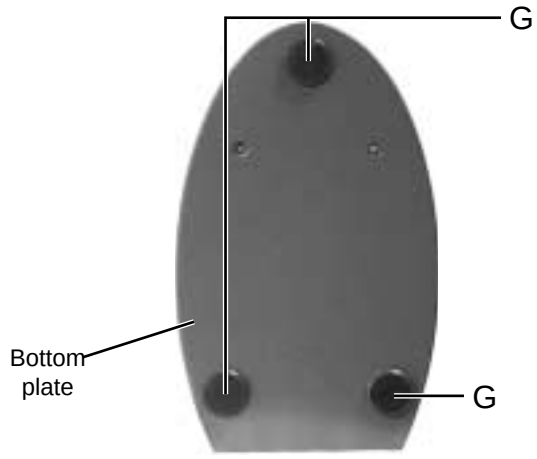


Fig.7

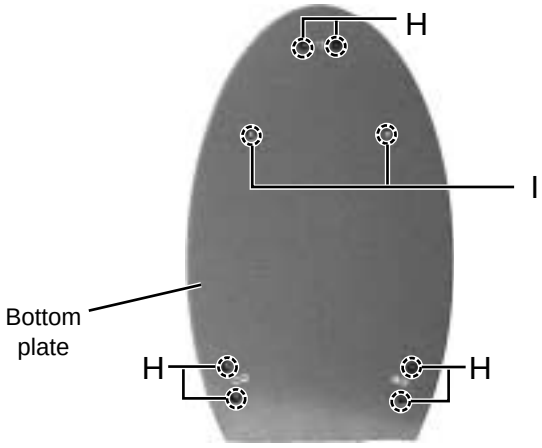


Fig.8

■Removing the woofer (See Fig.9)

- Prior to performing the following procedures, remove the bottom plate.

1. Remove the four screws **J** attaching the woofer.
2. Pull out the woofer toward you.

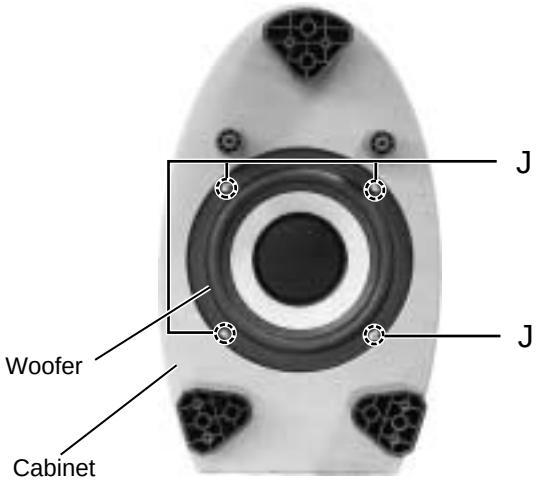
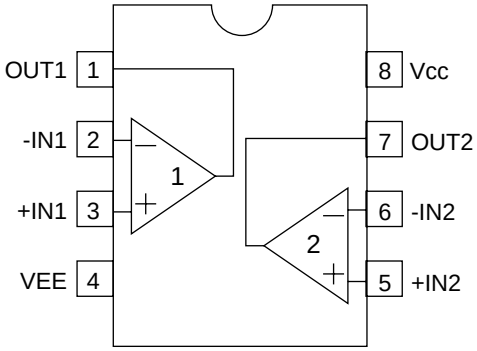


Fig.9

Description of major ICs

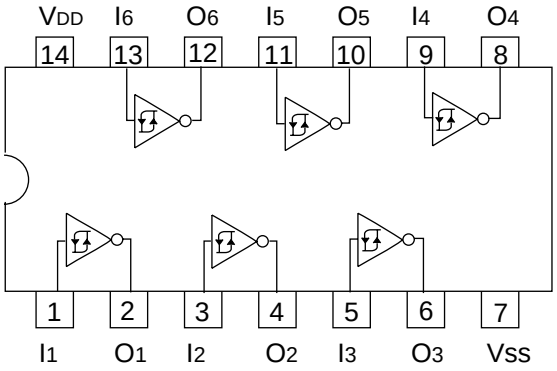
■ BA15218F (IC101, 102, 103, 104, 501) : Dual op. amp.

1. Pin layout / Block diagram



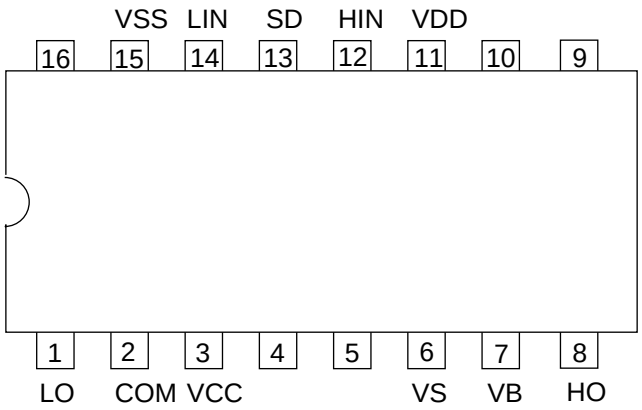
■ BU4584BF (IC505) : CMOS

1. Pin layout / Block diagram

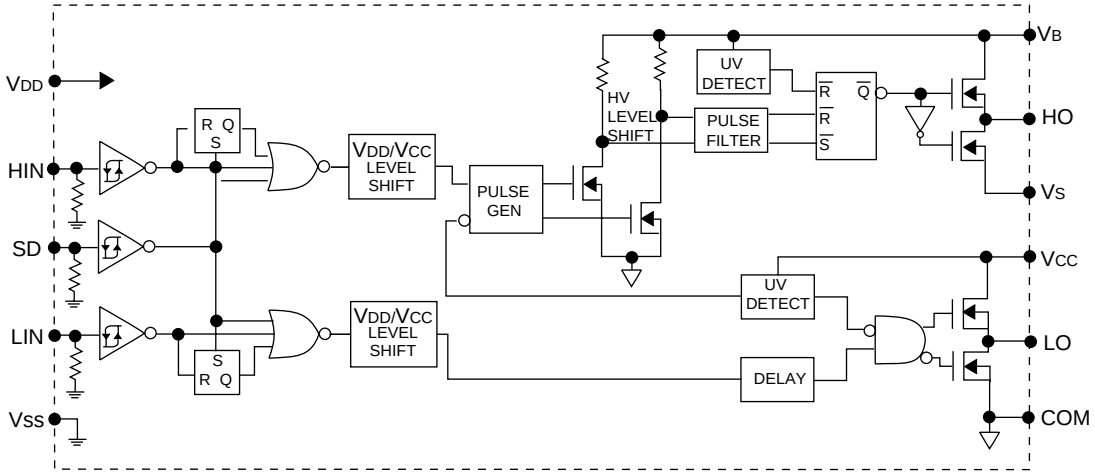


■ IR2113S (IC506) : Gate driver

1. Pin layout

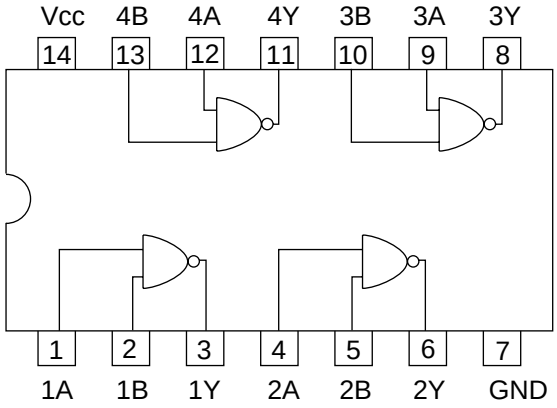


2. Block diagram



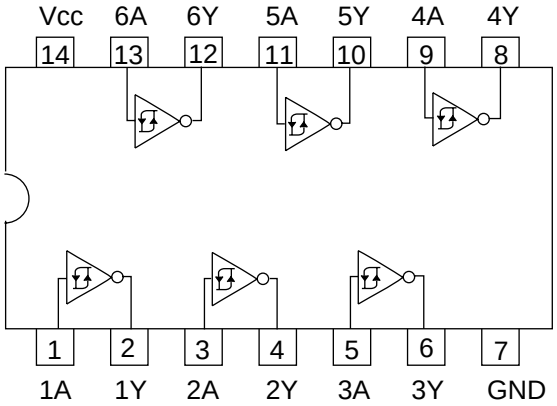
■ TC74HC00AF (IC503) : CMOS

1. Pin layout / Block diagram



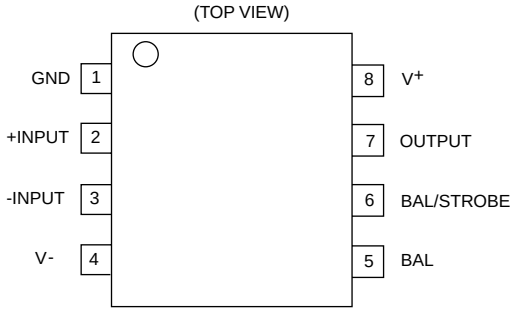
■ TC74HC14AF (IC504, IC571) : CMOS

1. Pin layout / Block diagram



■ NJM311M (IC502) : Comparator

1. Pin layout



PARTS LIST

[SX-DW303]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

E ---------- Continental Europe

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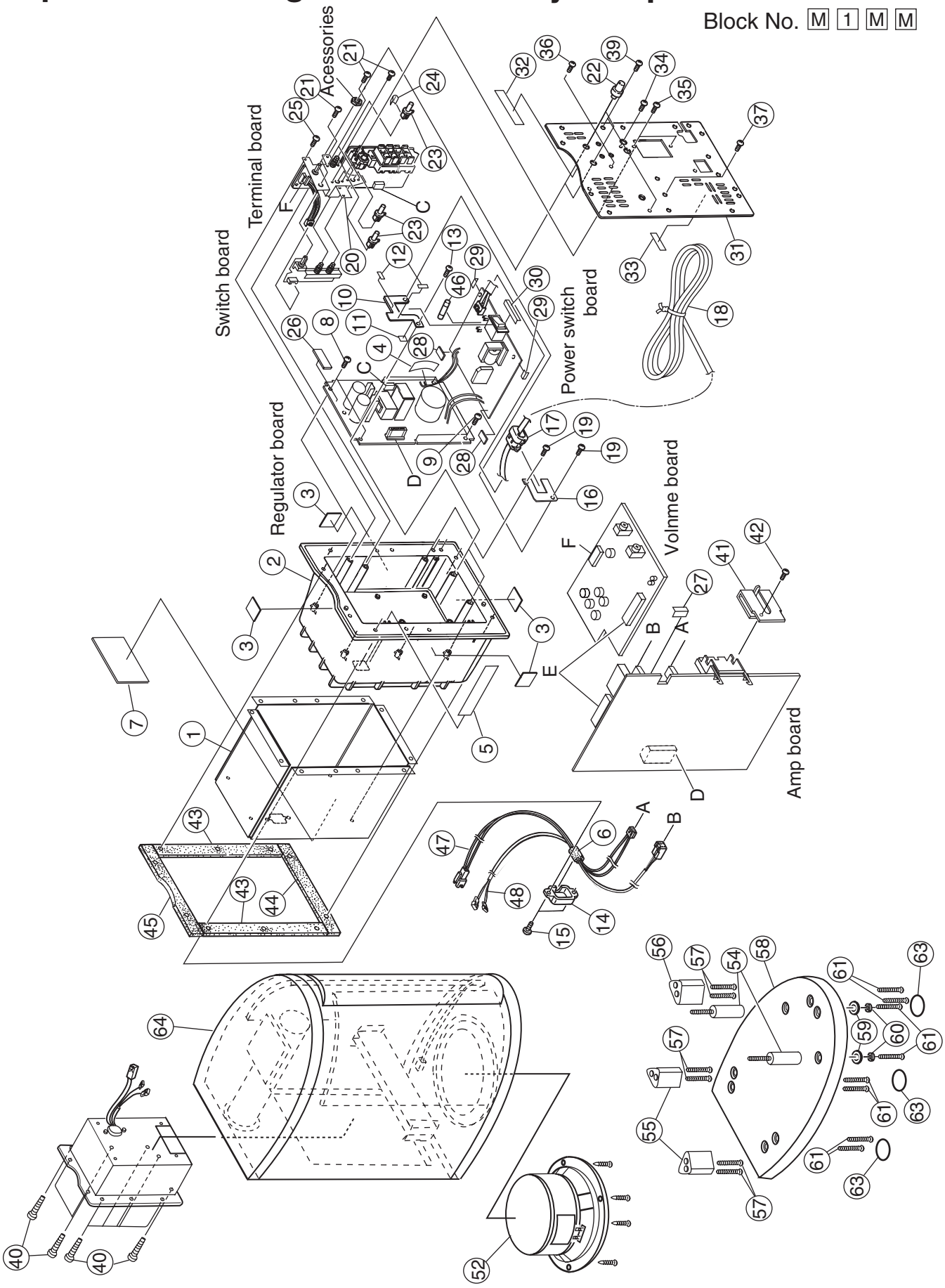
Exploded view of general assembly and parts list

Block No. M 1 M M



■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV21341-001A	SHIELD	1		
	2	LV10709-002A	COVER	1		
	3	LV30225-044A	SPACER	4		
	4	LV30225-079A	SPACER	1		
	5	LV30225-0E4A	SPACER	1		
	6	LV30225-025A	SPACER	1		
	7	LV30225-0G8A	SPACER	1		
	8	QYSBSG3016E	T.SCREW	2	PW-SHIELD	
	9	QYSBSF3008Z	SCREW	4	PW-COVER	
	10	LV43179-002A	BKT(SW)	1		
	11	LV30225-0H6A	SPACER	1	TO BKT(SW)	
	12	LV30225-0H7A	SPACER	2	TO BKT(SW)	
	13	QYSBSF2612M	T.SCREW	1	BKT(SW)-COVER	
	14	LV41148-002A	CORD COVER	1		
	15	QYSBSF4012Z	SCREW	2	CORD COVER-COVE	
	16	LV43178-001A	BKT(CORD)	1		
⚠	17	QHS3771-108	CORD STOPPER	1		
⚠	18	QMPN190-200-JD	POWER CORD	1		
	19	QYSBSF2612M	T.SCREW	2	BKT(CORD)-COVER	
	20	LV33804-002A	BKT(KNOB)	1		
	21	QYSBST3006Z	T.SCREW	4	PW-BKT(KNOB)	
	22	LV30734-002A	KNOB	2		
	23	E407321-002SM	PUSH BUTTON	3		
	24	LV30225-0H5A	SPACER	1	TO PUSH BUTTON	
	25	QYSBSF2612M	T.SCREW	3	BKT(KNOB)-COVER	
	26	LV30225-0H5A	SPACER	1	-A1	
	27	LV30225-0E5A	SPACER	1	-A2	
	28	LV30225-0E5A	SPACER	2	-A5	
	29	LV30225-0A4A	SPACER	2	-A5	
	30	LV30225-074A	SPACER	1	-A5	
	31	LV21342-005A	BACK PANEL	1		
	32	LV30225-0H4A	SPACER	1	TO BACK PANEL	
	33	LV30225-0H5A	SPACER	1	TO BACK PANEL	
	34	QYSBSGY3008E	SPECIAL SCREW	1	PIN JACK	
	35	QYSBSGY3008E	SPECIAL SCREW	2	SPK TERMINAL	
	36	QYSBSGY3008E	SPECIAL SCREW	1	BKT(KNOB)	
	37	QYSBSGY3008E	SPECIAL SCREW	1	HEAT SINK2	
	39	QYSBSGY3008E	SPECIAL SCREW	2	REAR-SHIELD	
	40	QYSDSA4020M	TAP SCREW	11	AMP-SPK CABI	
⚠	41	LV33803-001A	HEAT SINK	1		
	42	QYSBSG3012Z	SCREW	1	HEAT SINK2-BKT	
	43	LV30225-0G7A	SPACER	2		
	44	LV30225-0G4A	SPACER	1		
	45	LV43211-001A	SPACER	1		
⚠	46	QMF51E2-2R0-J1	FUSE	1		
	47	WJJ0098-001A	E-SI C WIRE C-C	1		
	48	WJN0095-001A	E-SH C WIRE C-C	1		
	52	LE10016-039A	SPK UNIT	1		

■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	54	LV43202-001A	FOOT	2		
	55	LV33824-001A	FOOT	2		
	56	LV33824-002A	FOOT	1		
	57	DW3-ML02-01	SCREW	6		
	58	DW3-TZ00-01	STAND	1		
	59	PD3-DP00-01	WASHER	2		
	60	DD3-DP00-01	WASHER	2		
	61	DW3-ML02-01	SCREW	8		
	63	DW3-JD00-01	FOOT SPACER	3		
	64	LV33918-002A	CABINET	1		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	BK501	LV33818-001A	BKT(FET)	FOR FET	
	CN101	QGB2016K1-08	CONNECTOR	TO PO AMP	
	CN102	QGA2501C1-02	2P CONNECTOR	TO LED PWB	
	CN103	QGB2016J1-05	CONNECTOR	TO PS PWB	
	CN151	QGA2001C1-08	8P PLUG ASSY	TO CONT.PWB	
	CN501	QGB2016J1-08	CONNECTOR		
	CN502	QGB2510K1-10	CONNECTOR	FOR CN951	
	CN503	QGA3901C1-02	CONNECTOR	FOR SPK	
	CN504	QGB2016J1-11	CONNECTOR		
	CN505	QGB2016K1-11	CONNECTOR	FOR CN504	
	CN901	QGA7901F2-02	CONNECTOR		
	CN951	QGB2510J1-10	CONNECTOR		
	CN952	QGB2016K1-05	CONNECTOR		
	C1001	NCB31HK-102X	C CAPACITOR		
	C1002	NCB31HK-102X	C CAPACITOR		
	C1003	QTE1H06-475Z	E CAPACITOR		
	C1004	QTE1H06-475Z	E CAPACITOR		
	C1005	NCB31HK-222X	C CAPACITOR		
	C1006	NCB31HK-223X	C CAPACITOR		
	C1007	NCB31HK-223X	C CAPACITOR		
	C1008	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C1009	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C1010	QFN31HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C1011	QFN31HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C1012	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C1013	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C1014	QFN31HJ-563Z	M CAPACITOR	.056MF 5% 50V	
	C1015	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C1016	QTE1V06-106Z	E CAPACITOR		
	C1017	QFN31HJ-683Z	M CAPACITOR	.068MF 5% 50V	
	C1018	QFN31HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1019	QTE1V06-106Z	E CAPACITOR		
	C1020	NCB31HK-562X	C CAPACITOR		
	C1021	QTE1C06-476Z	E CAPACITOR		
	C1022	QTE1C06-476Z	E CAPACITOR		
	C1023	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1025	NCS31HJ-151X	C CAPACITOR		
	C1026	NCS31HJ-151X	C CAPACITOR		
	C1027	NCB31HK-103X	C CAPACITOR		
	C1028	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1029	NCS31HJ-470X	C.CAPACITOR		
	C1030	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1031	NCB31HK-103X	C CAPACITOR		
	C1032	QETN1CM-477Z	E CAPACITOR	470MF 20% 16V	
	C1033	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C1034	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C1035	QFN31HJ-183Z	M CAPACITOR	.018MF 5% 50V	
	C1036	QFVJ1HJ-154Z	MF CAPACITOR	.15MF 5% 50V	
	C1037	NCB31HK-332X	C CAPACITOR		
	C1038	QFVJ1HJ-684Z	MF CAPACITOR	.68MF 5% 50V	
	C1039	QFVJ1HJ-684Z	MF CAPACITOR	.68MF 5% 50V	
	C1501	QTE1V06-106Z	E CAPACITOR		
	C1502	QFN31HJ-332Z	M CAPACITOR	3300PF 5% 50V	
	C5001	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C5002	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C5003	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C5004	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C5005	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C5006	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C5007	NCS31HJ-471X	C CAPACITOR		
	C5008	NCB31HK-103X	C CAPACITOR		
	C5009	NCB31EK-104X	C CAPACITOR		
	C5010	NCB31EK-104X	C CAPACITOR		
	C5011	QCBB1HK-104Y	C CAPACITOR	.10MF 10% 50V	
	C5012	NCB31EK-104X	C CAPACITOR		
	C5013	QCBB1HK-104Y	C CAPACITOR	.10MF 10% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C5014	NCS31HJ-681X	C.CAPACITOR		
	C5015	NCS31HJ-470X	C.CAPACITOR		
	C5016	NCS31HJ-560X	C CAPACITOR		
	C5017	NCS31HJ-560X	C CAPACITOR		
	C5018	NCB11EK-224X	C CAPACITOR		
	C5019	NCB11EK-684X	C CAPACITOR		
	C5020	QTE1V06-106Z	E CAPACITOR		
	C5021	QFV72AJ-224Z	MF CAPACITOR	.22MF 5% 100V	
	C5022	QFG32AJ-392Z	PP CAPACITOR	3900PF 5% 100V	
	C5023	QENC1HM-225Z	NP E CAPACITOR	2.2MF 20% 50V	
	C5024	NCB31CK-823X	C CAPACITOR		
	C5025	NCF21HZ-104X	C CAPACITOR		
	C5026	QETN2AM-475Z	E.CAPA I/M	4.7MF 20% 100V	
	C5702	QETN1VM-227Z	E CAPACITOR	220MF 20% 35V	
	C5703	QER61CM-476Z	E CAPACITOR	47MF 20% 16V	
	C5704	NCB31HK-103X	C CAPACITOR		
	C5705	NCB31HK-103X	C CAPACITOR		
	C5706	NCB11AK-335X	C CAPACITOR		
	C5707	NCB31EK-104X	C CAPACITOR		
	C5708	NCB11AK-335X	C CAPACITOR		
	C5709	NCB21AK-225X	C.CAPACITOR		
	C5710	NCB21AK-225X	C.CAPACITOR		
	C5711	NCB11EK-224X	C CAPACITOR		
	C5901	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C5902	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C5903	QEHR1HM-227Z	E CAPACITOR	220MF 20% 50V	
	C5904	QEHR1HM-227Z	E CAPACITOR	220MF 20% 50V	
	C5905	QER61EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C5906	QER61EM-476Z	E CAPACITOR	47MF 20% 25V	
	C5907	NCB31HK-182X	C CAPACITOR		
	C5908	NCB31HK-182X	C CAPACITOR		
	C5909	QEHR1HM-107Z	E CAPACITOR	100MF 20% 50V	
	C5910	QEHR1HM-107Z	E CAPACITOR	100MF 20% 50V	
	C5911	QEHR1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C5912	QEHR1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C5913	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C5914	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C5915	QTE1E51-106Z	E CAPACITOR		
	C5916	QTE1E51-106Z	E CAPACITOR		
	C5917	NCB31HK-183X	C CAPACITOR		
	C5918	NCB31HK-183X	C CAPACITOR		
⚠	C9001	QFZ9075-224	M CAPACITOR	.22MF	
⚠	C9002	QFZ9075-104	M CAPACITOR	.10MF	
⚠	C9003	QCZ9079-102	C CAPACITOR	1000PF	
⚠	C9004	QCZ9079-102	C CAPACITOR	1000PF	
⚠	C9005	QFZ9075-103	MPP CAPACITOR	.010MF	
⚠	C9501	QEZ0603-227	E CAPACITOR	220MF	
	C9502	QCZ0366-102	C CAPACITOR	1000PF	
	C9503	NCB31HK-471X	C CAPACITOR		
	C9504	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C9505	NCB31HK-471X	C CAPACITOR		
	C9506	QFKB2JK-103	C CAPACITOR	.010MF 10%	
	C9507	QCZ0213-472	C CAPACITOR	4700PF	
	C9508	QCZ0213-472	C CAPACITOR	4700PF	
	C9509	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C9510	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C9511	QEHQ1HM-228	E.CAPACITOR	2200MF 20% 50V	
	C9512	QEHQ1HM-228	E.CAPACITOR	2200MF 20% 50V	
	C9513	NCB31HK-103X	C CAPACITOR		
	C9514	NCB31HK-103X	C CAPACITOR		
	C9515	QCZ9079-332	C CAPACITOR	3300PF	
	D1001	1SS133-T2	SI DIODE		
	D1002	1SS133-T2	SI DIODE		
	D1003	1SS133-T2	SI DIODE		
	D5001	1SS133-T2	SI DIODE		
	D5002	1SS133-T2	SI DIODE		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	D5003	1SS133-T2	SI DIODE		
	D5004	1SS133-T2	SI DIODE		
	D5005	1SS133-T2	SI DIODE		
	D5006	1SS133-T2	SI DIODE		
	D5007	MTZJ16B-T2	Z DIODE		
	D5008	M1FL20U-X	FR DIODE		
	D5009	MTZJ18B-T2	Z.DIODE		
	D5010	MTZJ18B-T2	Z.DIODE		
	D5011	M1FL20U-X	FR DIODE		
	D5012	M1FL20U-X	FR DIODE		
	D5013	1SS133-T2	SI DIODE		
	D5703	1SS133-T2	SI DIODE		
	D5704	1SS355-X	DIODE		
	D5705	1SS355-X	DIODE		
	D5706	1SS355-X	DIODE		
	D5707	1SS355-X	DIODE		
	D5708	MA3200/H/-X	ZENER DIODE		
	D5709	MA3200/H/-X	ZENER DIODE		
	D5710	1SS355-X	DIODE		
	D5711	1SS355-X	DIODE		
	D5712	MA3300/L/-X	ZENER DIODE		
	D5713	MA3300/L/-X	ZENER DIODE		
	D5714	1SS355-X	DIODE		
	D5715	1SS355-X	DIODE		
	D5716	1SS133-T2	SI DIODE		
	D5717	1SS355-X	DIODE		
	D5718	1SS355-X	DIODE		
	D5901	MTZJ16B-T2	Z DIODE		
	D5902	MTZJ18B-T2	Z.DIODE		
	D5903	MTZJ15A-T2	Z DIODE		
	D5904	MTZJ15A-T2	Z DIODE		
	D5905	MTZJ6.8B-T2	ZENER DIODE		
	D5906	MTZJ6.8B-T2	ZENER DIODE		
	D5907	MTZJ16B-T2	Z DIODE		
	D5908	MTZJ16B-T2	Z DIODE		
	D5909	RB160L-40-X	SB DIODE		
	D5910	RB160L-40-X	SB DIODE		
	D9001	RBV-606	BRIDGE DIODE		
	D9501	AW04-T2	FR DIODE		
	D9502	AG01Z-T2	DIODE		
	D9503	AG01Z-T2	DIODE		
	D9504	MTZJ20B-T2	Z DIODE		
	D9505	MTZJ20B-T2	Z DIODE		
	D9506	AG01Z-T2	DIODE		
	D9507	SARS03	SI DIODE		
⚠	D9509	FML-G22S	SI DIODE		
⚠	D9510	FML-G22S	SI DIODE		
	D9511	MTZJ15A-T2	Z DIODE		
	D9512	MTZJ15A-T2	Z DIODE		
	EP951	QNZ0136-001Z	EARTH PLATE		
	EP952	QNZ0136-001Z	EARTH PLATE		
⚠	HS951	LV33802-001A	HEAT SINK1	FOR IC951	
	HS952	E70306-001	HEAT SINK	FOR D9509	
	HS953	E70306-001	HEAT SINK	FOR D9510	
	HS954	E70306-001	HEAT SINK	FOR D9507	
	IC101	BA15218F-XE	IC		
	IC102	BA15218F-XE	IC		
	IC103	BA15218F-XE	IC		
	IC104	BA15218F-XE	IC		
	IC501	BA15218F-XE	IC		
	IC502	NJM311M-XE	IC		
	IC503	TC74HC00AF-W	IC		
	IC504	TC74HC14AF-X	IC		
	IC505	BU4584BF-X	IC		
	IC506	IR2113S-X	GATE DRIVER		
	IC571	TC74HC14AF-X	IC		

⚠	Item	Parts number	Parts name	Remarks	Area
	IC591	NJM78L05A-T	IC		
	IC592	NJM79L05A-T	IC		
	IC951	STR-F6676	IC		
	J1001	QNN0090-001	PIN JACK		
	J1002	QNB0159-002	SPK.TERMINAL		
	K1001	NQR0129-003X	FERRITE BESDA		
	K5002	QQR1183-001Z	FERRITE BEADS		
	K9501	QQR0779-001Z	INDUCTOR		
⚠	LF901	QQR1360-001	LINE FILTER		
⚠	LF902	QQR1360-001	LINE FILTER		
	L5001	QQR1361-001	TOROIDAL COIL		
	L5901	NQL114K-471X	INDUCTOR		
	L5902	NQL114K-471X	INDUCTOR		
	L5903	NQL114K-471X	INDUCTOR		
	L5904	NQL114K-471X	INDUCTOR		
	PC951	PC123Y02	IC(PHOTO COUPLE		
	Q1001	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q1002	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q1003	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q1004	2SA1037AK/RS/-X	TRANSISTOR		
	Q1005	2SD2114K/VW/-X	CHIP TRANSISTOR		
	Q1006	2SA1037AK/RS/-X	TRANSISTOR		
	Q1007	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5001	2SA1037AK/RS/-X	TRANSISTOR		
	Q5002	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5003	2SA1037AK/RS/-X	TRANSISTOR		
	Q5004	2SC4452/3-4/-X	TRANSISTOR		
	Q5005	2SA1514K/RS/-X	HIP TRANSISTOR		
	Q5006	IRFI540N	FET		
	Q5007	IRFI540N	FET		
	Q5706	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5707	2SA1037AK/RS/-X	TRANSISTOR		
	Q5708	KRC104S-X	TRANSISTOR		
	Q5709	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5710	2SA1037AK/RS/-X	TRANSISTOR		
	Q5711	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5712	KRA104S-X	DIGITAL.TR		
	Q5713	2SK303/3-4/-X	FET		
	Q5714	DTC115EKA-X	CHIP D.TR.		
	Q5715	KRA104S-X	DIGITAL.TR		
	Q5716	KRC104S-X	TRANSISTOR		
	Q5717	DTC115EKA-X	CHIP D.TR.		
	Q5718	DTC115EKA-X	CHIP D.TR.		
	Q5719	KRC104S-X	TRANSISTOR		
	Q5720	KRA104S-X	DIGITAL.TR		
	Q5721	KRC104S-X	TRANSISTOR		
	Q5722	DTC144TKA-X	TRANSISTOR		
	Q5723	2SK303/3-4/-X	FET		
	Q5901	2SD2395/EF/	TRANSISTOR		
	Q5902	2SA1037AK/RS/-X	TRANSISTOR		
	Q5903	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5904	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q5905	2SA1037AK/RS/-X	TRANSISTOR		
	Q9504	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q9508	2SA1514K/RS/-X	HIP TRANSITOR		
	Q9509	2SA1514K/RS/-X	HIP TRANSITOR		
	Q9510	2SC2412K/RS/-X	CHIP TRANSISTOR		
	RY502	QSK0148-001	RELAY		
	R1001	NRSA63J-474X	MG RESISTOR		
	R1002	NRSA63J-474X	MG RESISTOR		
	R1003	NRSA63J-563X	MG RESISTOR		
	R1004	NRSA63J-563X	MG RESISTOR		
	R1005	NRSA63J-683X	MG RESISTOR		
	R1006	QRL01DJ-471X	OMF RESISTOR	470 5% 1/1W	
	R1007	QRL01DJ-471X	OMF RESISTOR	470 5% 1/1W	
	R1008	NRSA63J-154X	MG RESISTOR		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R1009	NRSA63J-154X	MG RESISTOR		
	R1010	NRSA63J-154X	MG RESISTOR		
	R1011	NRSA63J-154X	MG RESISTOR		
	R1012	NRSA63J-682X	MG RESISTOR		
	R1013	NRSA63J-682X	MG RESISTOR		
	R1014	NRSA63J-563X	MG RESISTOR		
	R1015	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1016	NRSA63J-393X	MG RESISTOR		
	R1017	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1019	NRSA63J-472X	MG RESISTOR		
	R1020	NRSA63J-152X	MG RESISTOR		
	R1021	NRSA63J-562X	MG RESISTOR		
	R1022	NRSA63J-333X	MG RESISTOR		
	R1023	NRSA63J-184X	MG RESISTOR		
	R1025	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1028	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1030	NRSA63J-562X	MG RESISTOR		
	R1031	NRSA63J-562X	MG RESISTOR		
	R1032	NRSA63J-684X	MG RESISTOR		
	R1033	NRSA63J-103X	MG RESISTOR		
	R1034	NRSA63J-103X	MG RESISTOR		
	R1035	NRSA63J-103X	MG RESISTOR		
	R1036	NRSA63J-153X	MG RESISTOR		
	R1037	NRSA63J-393X	MG RESISTOR		
	R1038	NRSA63J-123X	MG RESISTOR		
	R1039	NRSA63J-223X	MG RESISTOR		
	R1040	NRSA63J-273X	MG RESISTOR		
	R1041	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1044	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1046	NRSA63J-823X	MG RESISTOR		
	R1047	NRSA63J-224X	MG RESISTOR		
	R1048	NRSA63J-102X	MG RESISTOR		
	R1049	NRSA63J-222X	MG RESISTOR		
	R1050	NRSA63J-473X	MG RESISTOR		
	R1051	NRSA63J-105X	MG RESISTOR		
	R1052	NRSA63J-222X	MG RESISTOR		
	R1053	NRSA63J-472X	MG RESISTOR		
	R1054	NRSA63J-560X	MG RESISTOR		
	R1055	NRSA63J-152X	MG RESISTOR		
	R1056	NRSA63J-103X	MG RESISTOR		
	R1057	NRSA63J-154X	MG RESISTOR		
	R1059	NRSA63J-104X	MG RESISTOR		
	R1060	NRSA63J-224X	MG RESISTOR		
	R1061	NRSA63J-105X	MG RESISTOR		
	R1062	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1064	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R1065	QRE141J-271Y	C RESISTOR	270 5% 1/4W	
	R1066	NRSA63J-473X	MG RESISTOR		
	R1067	NRSA63J-560X	MG RESISTOR		
	R1068	QRE141J-621Y	C RESISTOR	620 5% 1/4W	
	R1069	NRSA63J-102X	MG RESISTOR		
	R1070	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1071	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1501	NRSA63J-392X	MG RESISTOR		
	R5001	NRSA63J-223X	MG RESISTOR		
	R5002	NRSA63J-562X	MG RESISTOR		
	R5003	NRSA63J-103X	MG RESISTOR		
	R5004	NRSA63J-103X	MG RESISTOR		
	R5005	NRSA63J-103X	MG RESISTOR		
	R5006	NRSA63J-472X	MG RESISTOR		
	R5007	NRSA63J-203X	MG RESISTOR		
	R5008	NRSA63J-103X	MG RESISTOR		
	R5009	NRSA63J-103X	MG RESISTOR		
	R5010	NRSA63J-103X	MG RESISTOR		
	R5011	NRSA63J-103X	MG RESISTOR		
	R5012	NRSA63J-103X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R5013	NRSA63J-472X	MG RESISTOR		
	R5014	NRSA63J-472X	MG RESISTOR		
	R5015	NRSA63J-222X	MG RESISTOR		
	R5016	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R5017	NRSA63J-471X	MG RESISTOR		
	R5018	NRSA63J-471X	MG RESISTOR		
	R5019	NRSA63J-4R7X	MG RESISTOR		
	R5020	NRSA63J-4R7X	MG RESISTOR		
	R5021	NRSA63J-4R7X	MG RESISTOR		
	R5022	NRSA63J-4R7X	MG RESISTOR		
	R5023	NRSA63J-101X	MG RESISTOR		
	R5024	NRSA63J-272X	MG RESISTOR		
	R5025	NRSA63J-4R7X	MG RESISTOR		
	R5026	NRSA63J-4R7X	MG RESISTOR		
	R5027	NRSA63J-2R2X	MG RESISTOR		
	R5028	NRSA63J-102X	MG RESISTOR		
	R5029	NRSA63J-682X	MG RESISTOR		
	R5030	NRSA63J-682X	MG RESISTOR		
	R5031	NRSA63J-472X	MG RESISTOR		
	R5032	NRSA63J-222X	MG RESISTOR		
	R5033	NRSA63J-2R2X	MG RESISTOR		
	R5034	NRSA63J-2R2X	MG RESISTOR		
	R5035	NRSA63J-2R2X	MG RESISTOR		
	R5036	NRSA63J-103X	MG RESISTOR		
	R5037	NRSA63J-123X	MG RESISTOR		
	R5038	NRSA63J-222X	MG RESISTOR		
	R5039	NRSA63J-103X	MG RESISTOR		
	R5040	NRSA63J-102X	MG RESISTOR		
	R5041	NRSA63J-562X	MG RESISTOR		
	R5042	NRSA63J-102X	MG RESISTOR		
	R5043	NRSA63J-332X	MG RESISTOR		
	R5044	NRSA63J-561X	MG RESISTOR		
	R5045	NRSA63J-822X	MG RESISTOR		
	R5046	NRSA63J-822X	MG RESISTOR		
	R5048	NRSA63J-103X	MG RESISTOR		
	R5049	QRE141J-220Y	C RESISTOR	22 5% 1/4W	
	R5050	QRZ9015-2R2X	F.RESISTOR	2.2 1/4W	
	R5051	QRZ9015-100X	F.RESISTOR	10 1/4W	
	R5052	QRK126J-220X	C RESISTOR	22 5% 1/2W	
	R5053	NRSA63J-105X	MG RESISTOR		
	R5054	NRSA63J-105X	MG RESISTOR		
	R5055	QRL01DJ-100X	OMF RESISTOR	10 5% 1/1W	
	R5056	QRL01DJ-100X	OMF RESISTOR	10 5% 1/1W	
	R5057	NRSA63J-473X	MG RESISTOR		
	R5058	NRSA63J-184X	MG RESISTOR		
	R5059	NRSA63J-113X	MG RESISTOR		
	R5701	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5702	NRSA63J-103X	MG RESISTOR		
	R5713	NRSA63J-153X	MG RESISTOR		
	R5714	NRSA63J-473X	MG RESISTOR		
	R5715	NRSA63J-472X	MG RESISTOR		
	R5716	NRSA63J-224X	MG RESISTOR		
	R5717	NRSA63J-104X	MG RESISTOR		
	R5718	NRSA63J-473X	MG RESISTOR		
	R5719	NRSA63J-473X	MG RESISTOR		
	R5720	NRSA63J-222X	MG RESISTOR		
	R5721	NRSA63J-473X	MG RESISTOR		
	R5722	NRSA63J-473X	MG RESISTOR		
	R5723	NRSA63J-224X	MG RESISTOR		
	R5724	NRSA63J-473X	MG RESISTOR		
	R5725	NRSA63J-473X	MG RESISTOR		
	R5726	NRSA63J-104X	MG RESISTOR		
	R5727	NRSA63J-104X	MG RESISTOR		
	R5728	NRSA63J-473X	MG RESISTOR		
	R5729	NRSA63J-473X	MG RESISTOR		
	R5730	NRSA63J-104X	MG RESISTOR		

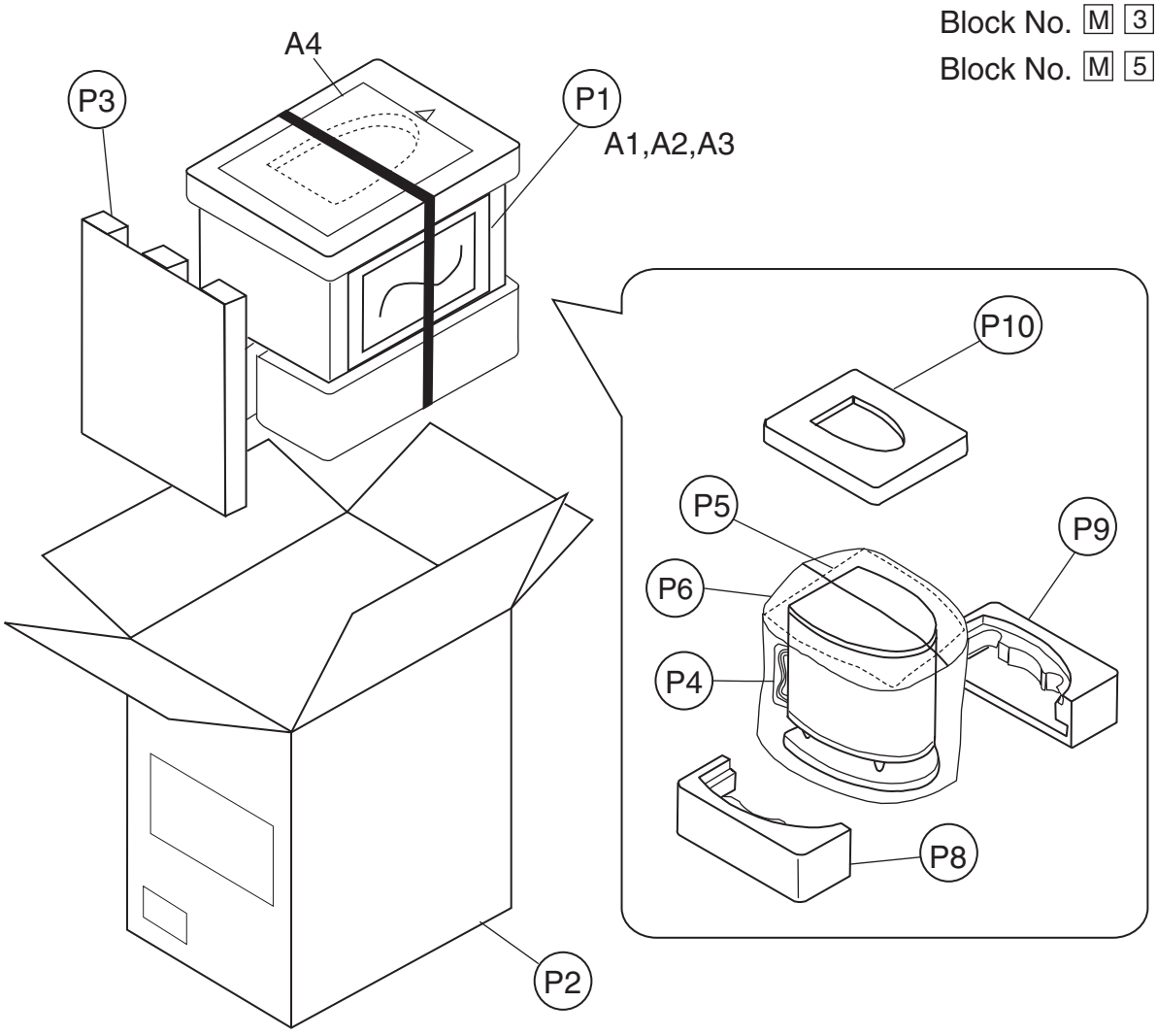
■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R5731	NRSA63J-103X	MG RESISTOR		
	R5732	NRSA63J-103X	MG RESISTOR		
	R5733	NRSA63J-104X	MG RESISTOR		
	R5734	NRSA63J-474X	MG RESISTOR		
	R5735	NRSA63J-103X	MG RESISTOR		
	R5736	NRSA63J-474X	MG RESISTOR		
	R5737	NRSA63J-103X	MG RESISTOR		
	R5738	NRSA63J-104X	MG RESISTOR		
	R5739	NRSA63J-103X	MG RESISTOR		
	R5740	NRSA63J-473X	MG RESISTOR		
	R5741	NRSA63J-0R0X	MG RESISTOR		
	R5742	NRSA63J-2R2X	MG RESISTOR		
	R5743	NRSA63J-222X	MG RESISTOR		
	R5744	NRSA63J-391X	MG RESISTOR		
	R5745	NRSA63J-223X	MG RESISTOR		
	R5746	NRSA63J-104X	MG RESISTOR		
	R5747	NRSA63J-104X	MG RESISTOR		
	R5748	NRSA63J-104X	MG RESISTOR		
	R5749	NRSA63J-104X	MG RESISTOR		
	R5901	QRZ9015-100X	F.RESISTOR	10 1/4W	
	R5902	NRSA63J-682X	MG RESISTOR		
	R5905	NRSA63J-473X	MG RESISTOR		
	R5906	NRSA63J-473X	MG RESISTOR		
	R5909	QRZ9015-101X	F.RESISTOR	100 1/4W	
	R5910	QRZ9015-101X	F.RESISTOR	100 1/4W	
	R5911	NRSA63J-102X	MG RESISTOR		
	R5912	NRSA63J-102X	MG RESISTOR		
	R9001	QRL027J-104	OMF RESISTOR	100K 5% 1/2W	
	R9002	QRZ9037-335	F RESISTOR	3.3M 1/4W	
	R9501	QRT017J-R33	MF RESISTOR	5% 1/1W	
	R9502	QRT017J-R33	MF RESISTOR	5% 1/1W	
	R9503	QRZ9005-681X	F RESISTOR	680 1/4W	
	R9504	NRSA63J-332X	MG RESISTOR		
	R9505	NRSA63J-222X	MG RESISTOR		
	R9506	NRSA63J-103X	MG RESISTOR		
	R9508	QRL01DJ-220X	OMF RESISTOR	22 5% 1/1W	
	R9510	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	R9516	NRSA63J-153X	MG RESISTOR		
	R9517	NRSA63J-103X	MG RESISTOR		
	R9518	NRSA63J-103X	MG RESISTOR		
	R9519	NRSA63J-103X	MG RESISTOR		
	R9520	NRSA63J-153X	MG RESISTOR		
	R9521	NRSA63J-103X	MG RESISTOR		
	R9522	NRSA63J-103X	MG RESISTOR		
	R9523	NRSA63J-102X	MG RESISTOR		
	R9524	NRSA63J-472X	MG RESISTOR		
	R9525	NRSA63J-102X	MG RESISTOR		
	R9526	NRSA63J-103X	MG RESISTOR		
	R9527	NRSA63J-222X	MG RESISTOR		
	R9528	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	R9529	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	S1001	QSW1002-001	PUSH SW	XD33 CHANGE	
	S1501	QSW0999-001	PUSH SW	PHASE&AUTO-P	
⚠	S9001	QSW1001-001	POWER SW		
	TH501	QAD0015-153Z	THERMISTOR		
	TH591	NAD0032-330X	P THERMISTOR		
	TH592	NAD0032-330X	P THERMISTOR		
	TH593	NAD0032-330X	P THERMISTOR		
	TH594	NAD0032-330X	P THERMISTOR		
	TH901	QAD0141-6R0	THERMISTOR		
	T9501	QQS0172-001	SW TRANS		
	VR101	QVQ0300-B24	V.RESISTOR	CROSS OVER FREQ	
	VR151	QVQ0021-B14	V RESISTOR		
	VR501	QVP0008-202Z	SEMI V RESISTOR		
	VR502	QVP0008-203Z	SEMI V RESISTOR		
	W1001	QJB001-080701	SIN ID C-B WIR		

⚠	Item	Parts number	Parts name	Remarks	Area
	W2001	QUB753-04A2A2	UL WIRE		
	W2002	QUB752-11A2A2	UL WIRE		
	W2004	QUB751-11A2A2	UL WIRE		
	W9001	QUB192-07PPPP	SIN TWIST WIRE		
	W9002	QUB199-09PPPP	SIN TWIST WIRE		
	W9003	QUB191-07PPPP	SIN TWIST WIRE		
	W9004	QUB190-09PPPP	SIN TWIST WIRE		
⚠	Z9001	QNG0003-001Z	FUSE CLIP		
⚠	Z9002	QNG0003-001Z	FUSE CLIP		

Packing materials and accessories parts list

Block No. M 3 M M
Block No. M 5 M M



■ Parts list (Packing)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPA02503503P	POLY BAG	1	FOR INST	
	P 2	LV31492-026A	CARTON	1		
	P 3	LV33917-001A	CARTON SHEET	1		
	P 4	QPA02503503P	POLY BAG	1		
	P 5	QPH03004510	POLY SHEET	1		
	P 6	QPA07007505P	POLY BAG	1		
	P 8	LV21345-002A	BOTTOM CUSHION	1		
	P 9	LV21345-002A	BOTTOM CUSHION	1		
	P 10	LV21345-001A	TOP CUSHION	1		

■ Parts list (Accessories)

Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0951-002A	INST.BOOK	1	FIN	
		LVT0951-002A	INST.BOOK	1	SPA.ITA.SWE.DAN	
		LVT0951-002A	INST BOOK	1	ENG.GER.FRE.DUT	
	A 2	BT-54008-4	W.CARD	1		
	A 3	QAM0199-001	PIN CABLE	1		
	A 4	LV43196-002A	CAUTION SHEET	1		

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SCHEMATIC DIAGRAMS

POWERED SUBWOOFER

SX-DW303

CD-ROM No.SML200210

Area Suffix

E --- Continental Europe

Contents

Block diagram ---------- 2-1
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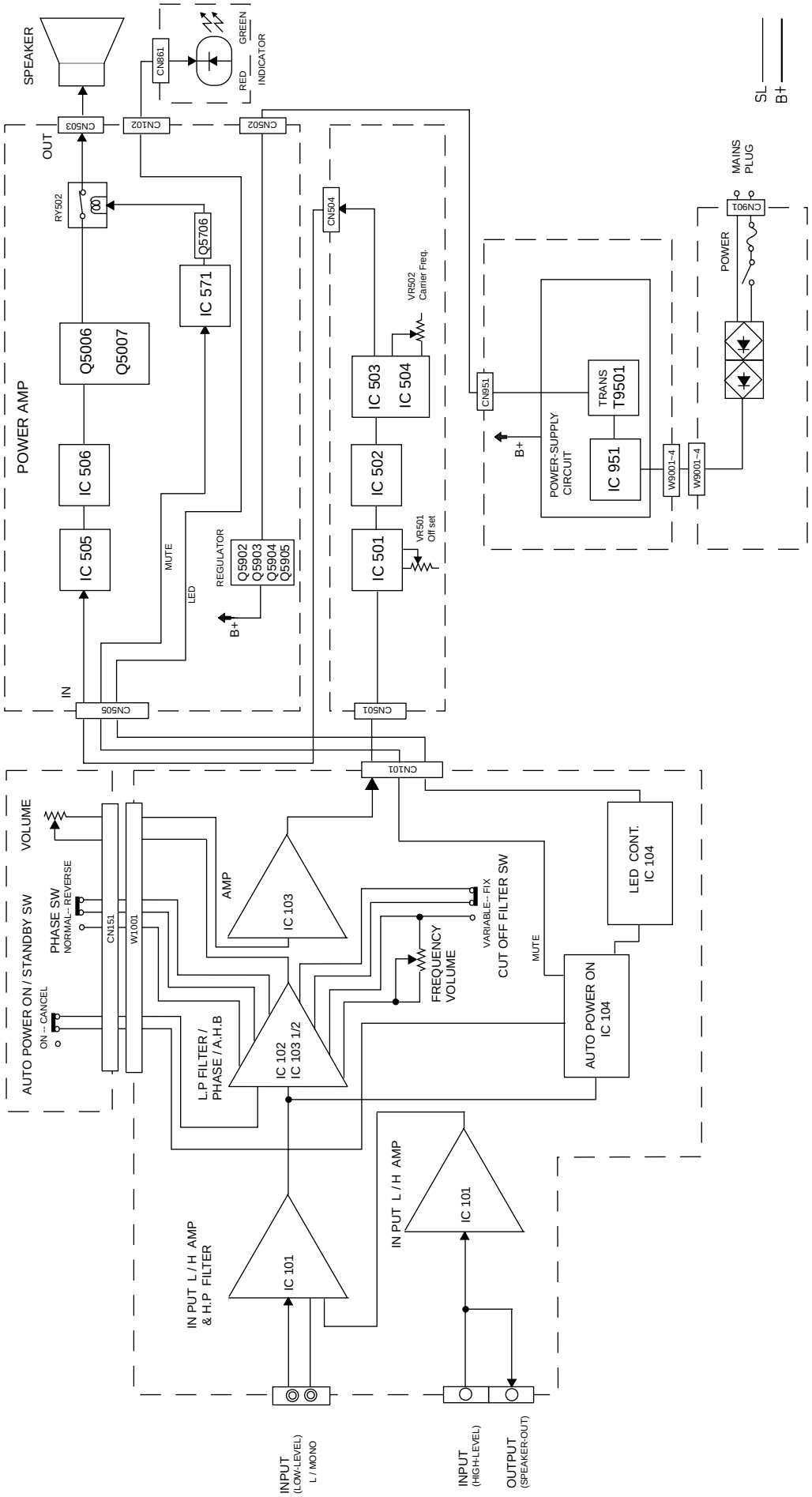
No.21177SCH
Oct. 2002

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▬) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

Block diagram



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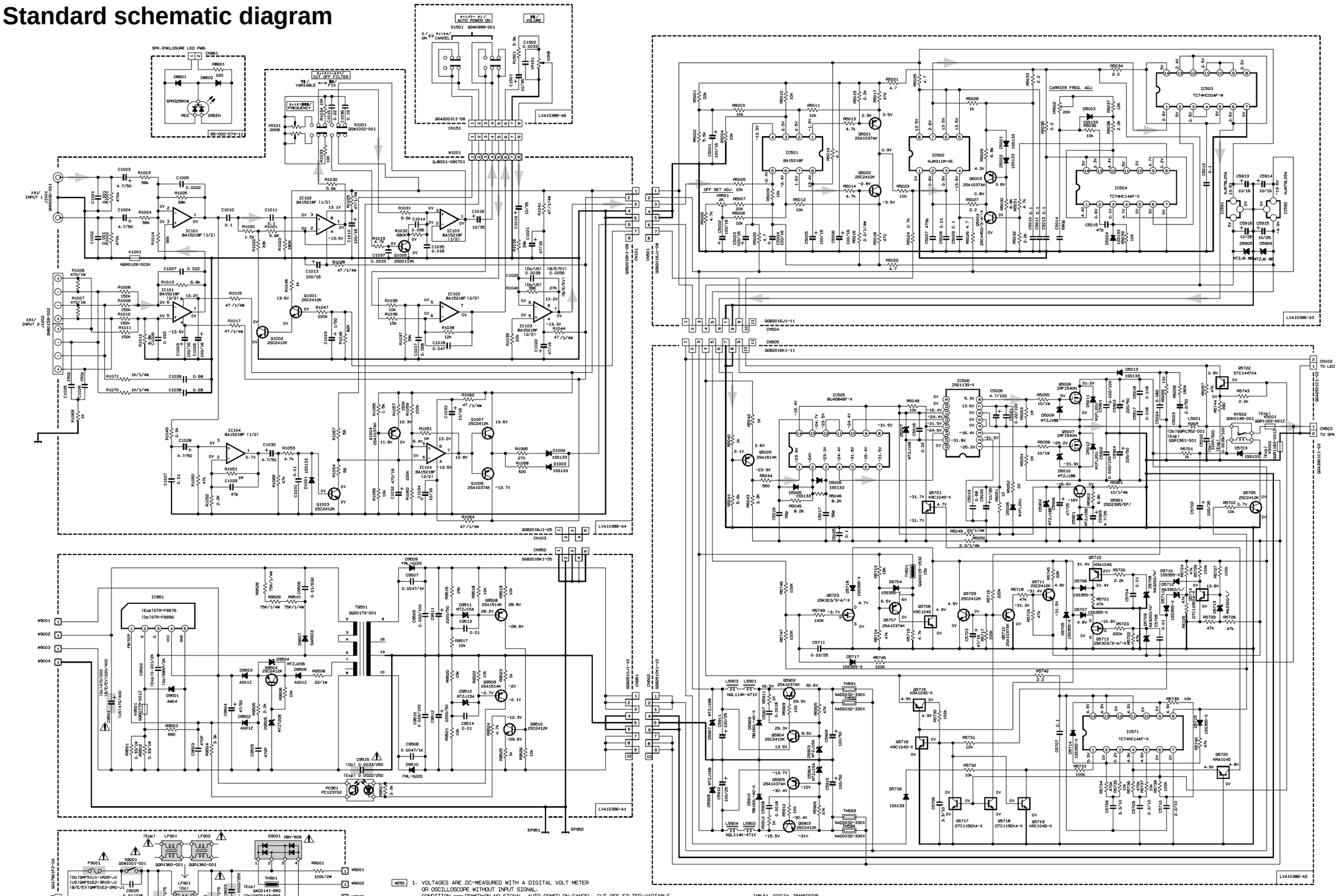
Standard schematic diagram



NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION —— POWER-ON-NO SIGNAL. AUTO POWER ON:CANCEL. CUT OFF FILTER:VARIABLE
2. UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/16W ±5% THICK FILM CHIP RESISTOR.
   ALL RESISTANCE VALUES ARE IN Ω=M(▮).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN ▮.F(P=pF).
   ALL INDUCTANCE VALUES ARE IN ▮.H(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (▮F)/RATED VOLTAGE (V).

TABLE1 DIGITAL TRANSISTOR

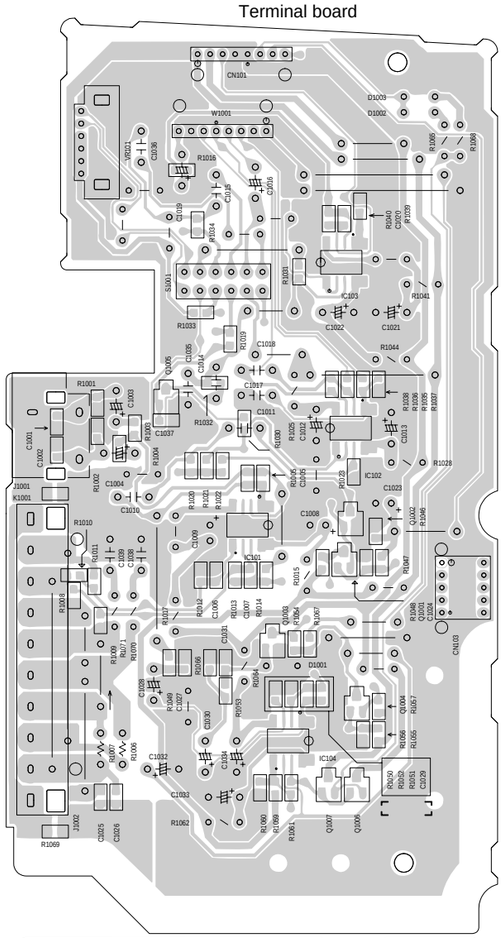
KRA104S-X KRC104S-X DTC115EKA-X DTC144TKA-X

PRE MAIN signal

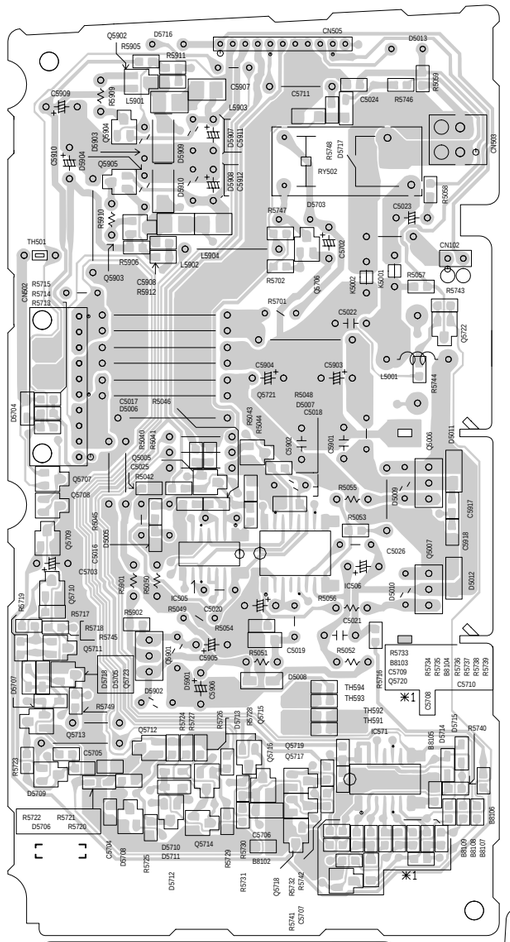
⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified.

Printed circuit boards

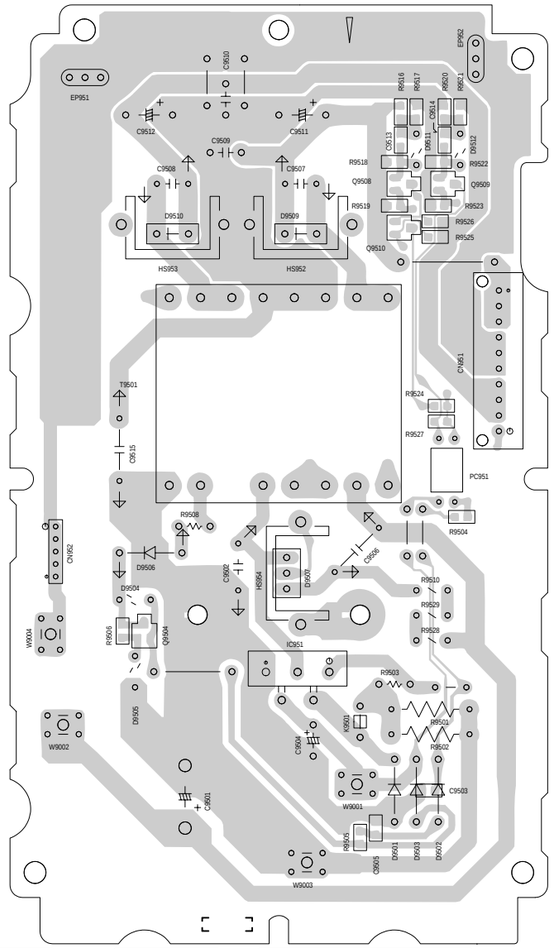
Terminal board

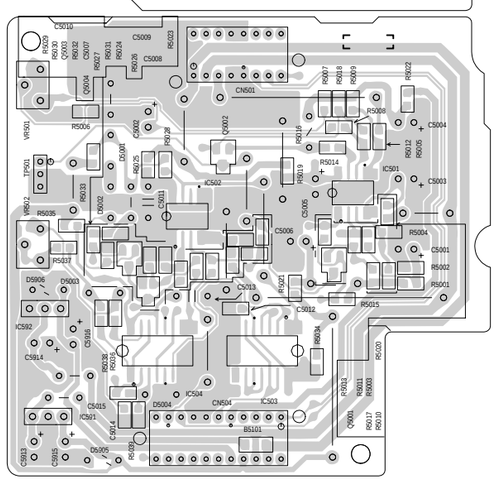


Amplifier board

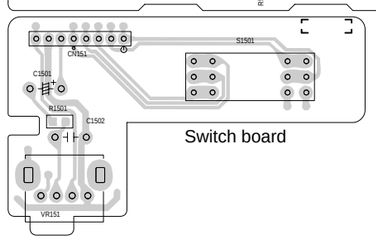


Regulator board

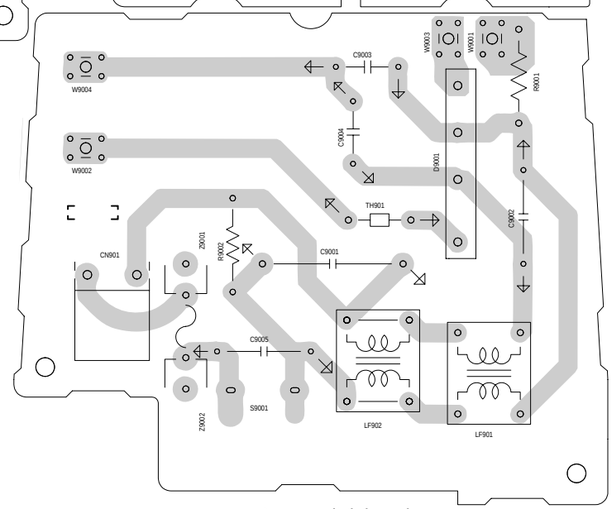




Volume board



Switch board



Power switch board

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